

# Ultra-Small Ceramic Power Splitter/Combiner

## SCN-2-27+ SCN-2-27

2 Way-0° 50Ω

2225 to 2700 MHz



CASE STYLE: FV1206-1  
PRICE: \$ 2.50 ea. QTY (10-49)  
\$ 0.99 ea. QTY (100)

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.

\*derate linearly to 6W at 100°C ambient

### Pin Connections

SUM PORT	2
PORT 1	6
PORT 2	4
GROUND	1,3,5
PORT 1-2	resistor external 100 OHMS

### Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.4 dB typ.
- good amplitude unbalance, 0.4 dB typ.
- good phase unbalance, 2.5 deg. typ.
- high isolation, 23 dB typ.
- excellent power handling, 20W as splitter
- small size, 0.12"X0.06"X0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost
- patent pending

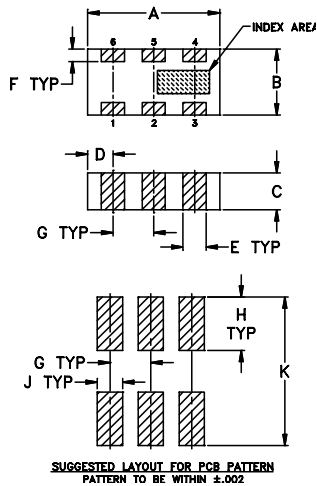
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

See our web site for RoHS Compliance methodologies and qualifications.

### Applications

- ISM
- MMDS
- WLAN

### Outline Drawing



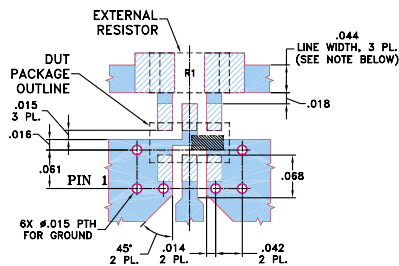
### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.126	.063	.037	.024	.022	.012
3.20	1.60	0.94	0.61	0.56	0.30

G	H	J	K	wt
.039	.042	.024	.123	grams
0.99	1.07	0.61	3.12	.020

### Demo Board MCL P/N: TB-252 Suggested PCB Layout (PL-129)



- NOTE:
1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350
  2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

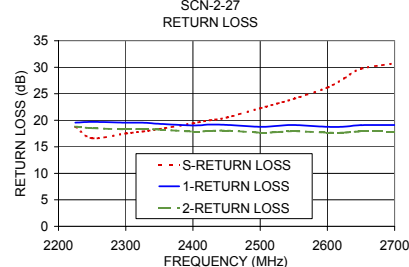
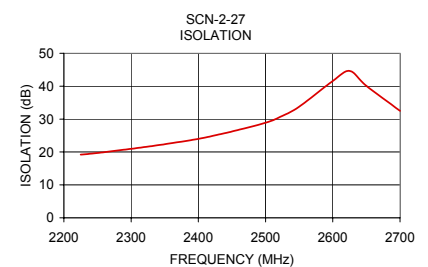
- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

### Splitter Electrical Specifications

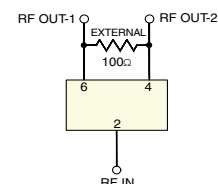
MODEL NO.	FREQUENCY (MHz)	INSERTION LOSS (dB)		ISOLATION (dB)	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	RETURN LOSS (dB)				
		ABOVE 3.0 dB					INPUT	OUTPUT			
SCN-2-27(+)	2225-2700 2325-2600	Typ.	Max.	Typ. Min.	Typ. Max.	Typ. Max.	Typ.	Typ.			
		0.5	1.1				21	17	19	17	
		0.4	1.0	23	20	2.5	6.0	0.4	0.7	20	17

### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				S	1	2
2225.00	3.28	3.56	0.28	19.22	1.19	18.80	19.57	18.80
2250.00	3.28	3.56	0.28	19.72	1.20	16.63	19.71	18.53
2300.00	3.26	3.55	0.29	20.95	1.23	17.52	19.55	18.29
2325.00	3.25	3.54	0.29	21.66	1.25	17.87	19.57	18.38
2350.00	3.25	3.55	0.30	22.34	1.26	18.35	19.32	18.25
2400.00	3.23	3.54	0.31	24.00	1.29	19.42	19.03	17.87
2425.00	3.22	3.54	0.32	25.09	1.31	20.01	19.18	18.00
2450.00	3.22	3.54	0.32	26.24	1.32	20.51	19.15	18.04
2500.00	3.21	3.54	0.33	28.89	1.35	22.26	18.78	17.67
2525.00	3.20	3.54	0.34	30.99	1.36	23.15	18.95	17.77
2550.00	3.20	3.54	0.34	33.77	1.38	24.04	19.11	17.94
2600.00	3.19	3.55	0.36	41.56	1.40	26.15	18.77	17.69
2625.00	3.19	3.55	0.36	44.63	1.41	27.91	18.81	17.68
2650.00	3.19	3.55	0.36	40.07	1.44	29.70	19.08	17.90
2700.00	3.19	3.57	0.38	32.50	1.46	30.72	19.11	17.87



### electrical schematic



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